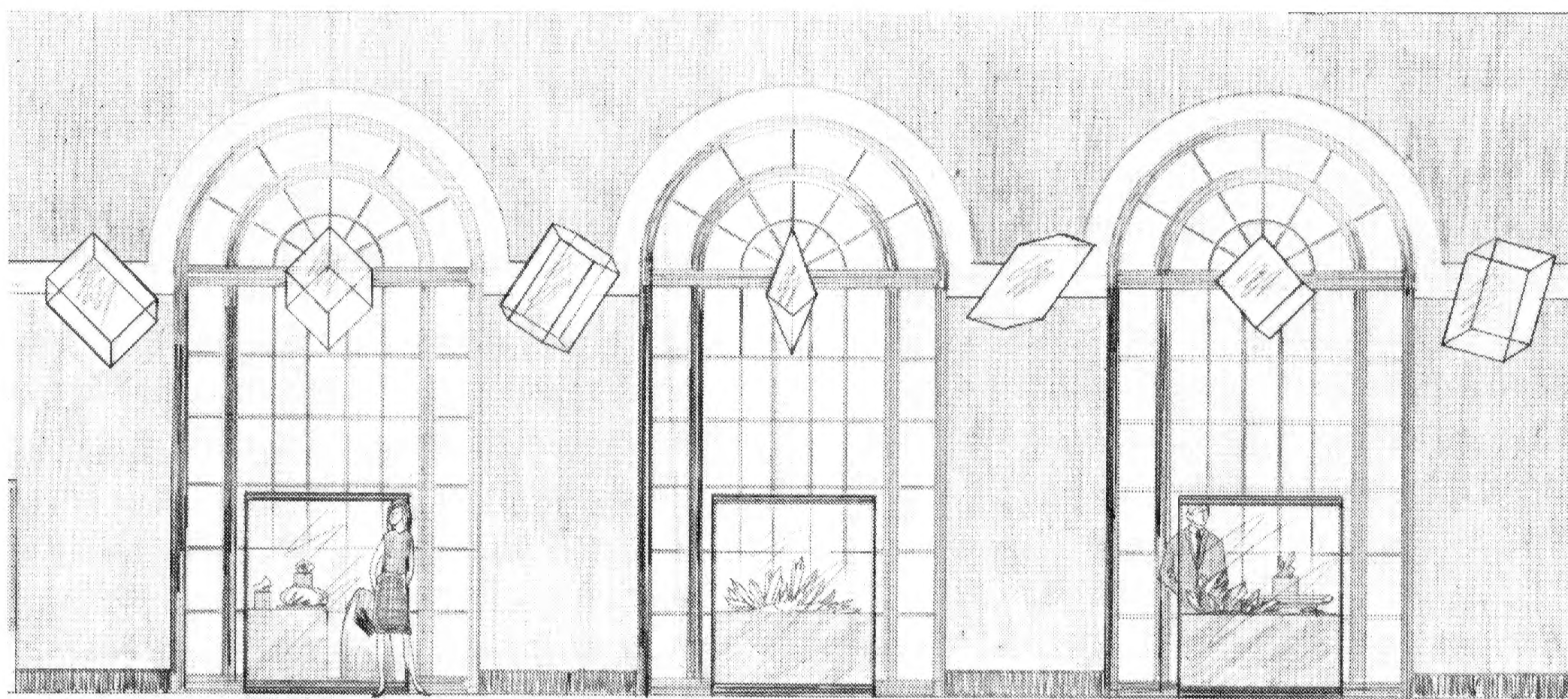


The ACADEMY NEWSLETTER

September 1987



New Sparkle in Gem and Mineral Hall



Members will find some wonderful changes in Gem & Mineral Hall when it reopens this month in elegantly renovated quarters. Architecturally, the most striking features are the three original arched windows reaching toward the freshly painted vaulted ceiling. The effect is like looking into a giant geode where natural light floods the space and enhances the sparkle of over 1,000 gems and minerals.

The renovation project has been directed by a team of three: scientific curator Jean DeMouthe, education chairman Susan Douglas and exhibit designer Linda Kulik. The close interaction of this team allows the best presentation of the Academy's collection by selecting display specimens for their scientific, educational and aesthetic value. But, enough of process. What you will see is the exciting part of the story.

In the carefully guarded cases of the Gem Room are precious and semi-precious stones including Tanzanite, Alexandrite and a rainbow selection of tourmalines. Here you

will find organic gems such as amber, coral and pearls, and the 13-pound Fricot gold specimen on loan from the State mineral collection. Welcome back the ever popular display of birthstone gems, and learn from a new exhibit on synthetics — what they are and how to spot them.

In the long gallery are hundreds of old familiar facets, including the 1350-pound quartz crystal from Arkansas, the amethyst lined "Trader Vic" geode from South America, and nephrite boulders from California and Canada. Suspended overhead are models of the seven crystal shapes which help tell the story of the formation of gems and minerals. Further down the hall is the systematic mineral collection from the Academy's wonderful worldwide collection.

Gem and Mineral Hall has been closed for the past year as part of a larger seismic upgrading and renovation project. It's just one of the many exciting exhibit halls being prepared for your education and enjoyment.

Members Meetings Offer New Clues to the Gold Rush



James Delgado surveying the bow of the King Philip on Ocean Beach

Recent maritime excavations are providing fascinating new clues to the California Gold Rush, a period of soaring spirits and frantic growth. On Wednesday, September 9 at 2:00 and 8:00 p.m. and Thursday, September 10 at 8:00 p.m. maritime archaeologist James Delgado will detail the latest findings in a slide lecture which includes some of the most important maritime archaeology sites in California.

In one year, from December 1848 to December 1849, 726 ships cleared North American ports for San Francisco. Many of these ships never reached their destination.

Excavations of the S.S. Winfield Scott off Anacapa Island; the Sterling and the "I" and "R" Street wrecks in the Sacramento River; the San Francisco ship chandler's store of William C. Hoff; and many other maritime sites have provided valuable clues about lifestyles and tastes of the gold seekers and life aboard ships of the period.

James Delgado, who became active in archaeological digs while a teenager, is acting Maritime Historian for the National Park Service. He has lectured extensively and taught several courses at the Academy including one this spring during which the class participated in the excavation of the steam schooner Grays Harbor at Candlestick Point.

Members' Meetings on October 14 and 15 feature Peter Steinhart and Tupper Ansel Blake on the Pacific flyway in "Tracks in the Sky."

Cameos of Cantonese Opera



courtesy of Mr. Wylie Wong

Wednesday, October 23 at 7:30 the Academy offers an unusual opportunity to experience Cantonese Opera, one of the rich social legacies of San Francisco's historic past. Cantonese Opera began in America in San Francisco's Chinatown in 1852 when Chinese immigrants staged their first production. Typically the operas were set in various dynastic eras of China's history and characterized by elaborate and exotic costumes of richly-embroidered silk creating a visual extravaganza. Cantonese opera delighted West Coast audiences and remained popular until the 1960's when performances dwindled almost to the point of extinction. This tradition is today being revitalized and maintained by the San Francisco Chinese Opera Troupe, which was founded in 1983. For their Academy debut, members of the troupe have designed a special program of excerpts from their repertoire, specifically to introduce the audience to the world of Chinese Opera. With full orchestral accompaniment, the group will perform short scenes from three different plays, illustrating the wide range of musical styles that express tragic, comic, romantic, and heroic themes. The performance is sponsored by the Traditional Arts Program with funding by the Paul L. and Phyllis Wattis Foundation.

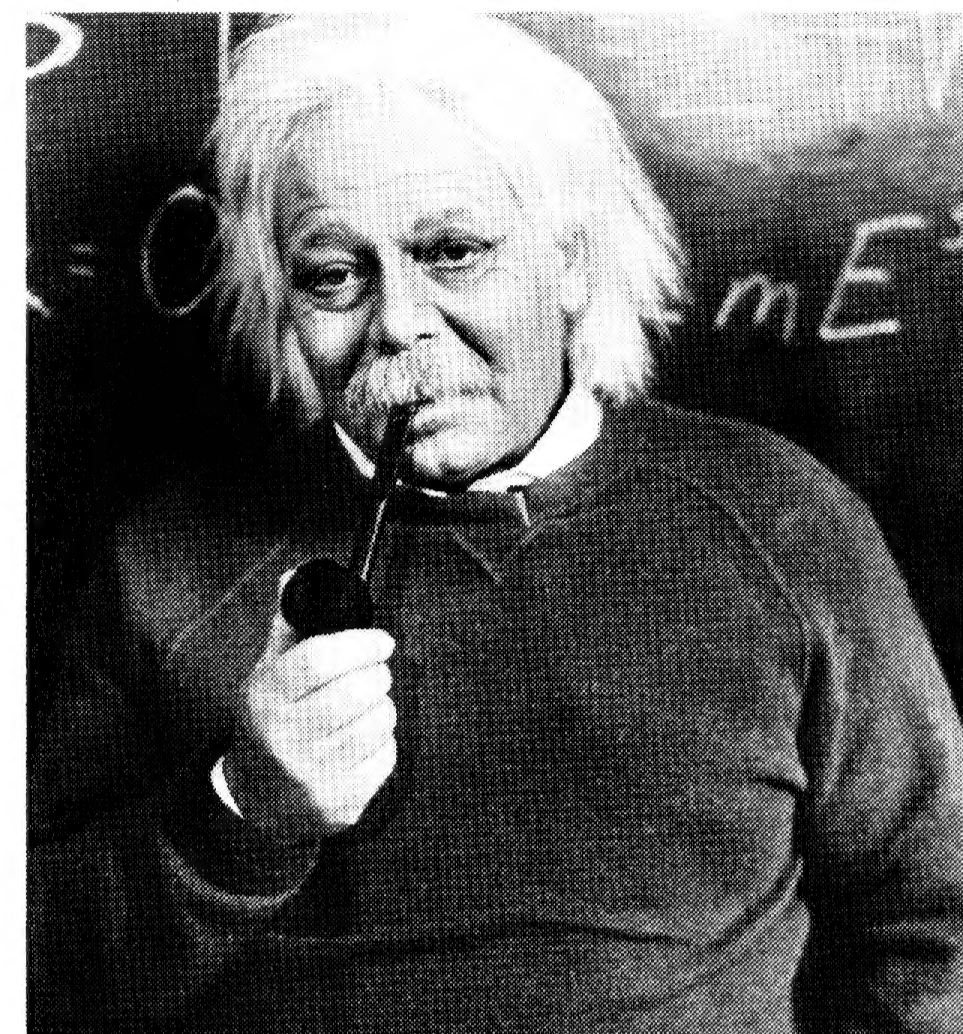
Tickets for the Cantonese Opera are \$6 for members and \$8 for non-members. Send a check and a self-addressed, stamped envelope to Cantonese Opera, Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. For information call (415) 750-7219.

Descent of the Omo River

The headwaters of the Omo River in the highlands of Ethiopia rush over 1,000 kilometers through inaccessible regions and a valley that may have been inhabited for over four million years to the jade colored waters of Lake Turkana. Roy Smith, leader of the Omo River Expedition for Yale University and National Geographic Society, will recount his thrilling exploratory expedition along the Omo River with a slide lecture on Thursday, October 29 at 8:00 p.m. Smith's group encountered tribes who had never before seen white people, were attacked by hippopotamuses and crocodiles, and were held captive by the Dimi Tribe in their mountain stronghold. Smith's exciting narrative brings this journey of adventure and discovery to life for the audience.

Tickets, \$4 for members and \$5 for non-members, are available by sending a check with a self-addressed, stamped envelope to the Special Programs Office, Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. For information call (415) 750-7222.

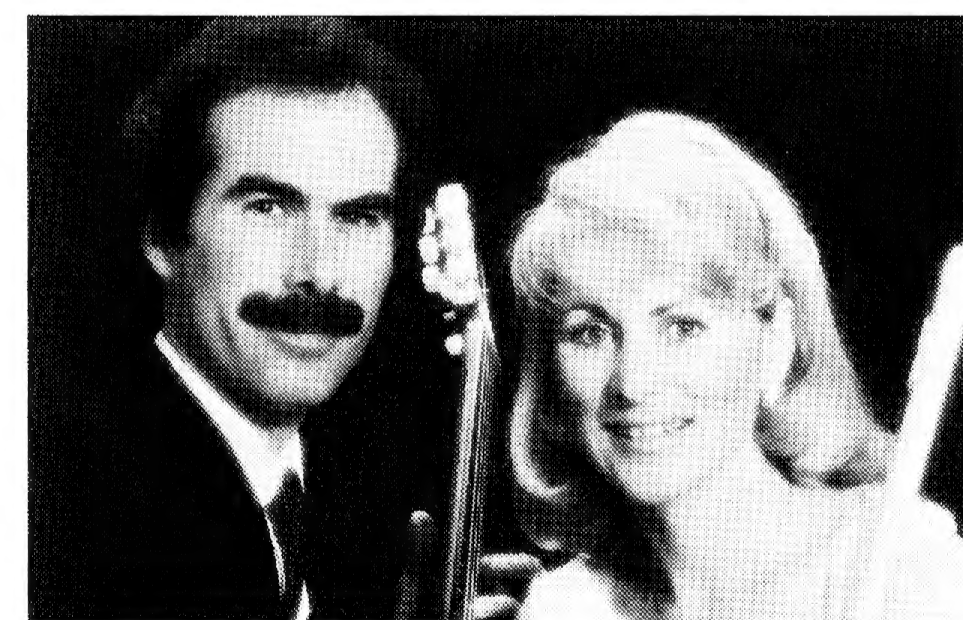
Spend an Evening with Einstein... And Save



Larry Gelman's warm and funny interpretation of "Einstein, the Man Behind the Genius" is now playing at the Waterfront Theater in Ghirardelli Square. Receive substantial ticket discounts for performances by calling Linda Graham at (415) 346-7805. Just tell her you are a member of the Academy and she will be happy to make ticket arrangements for you.

Planetarium Classical Music Concert Series

The 1987 Fall Concert Series offers the finest in classical music performed under the stars of the Academy's Morrison Planetarium. The Patterson-Ware Duo begins the Fall Series on Tuesday, September 22 at 8:00 p.m. with an evening of classical guitar and flute melodies by Vivaldi, Gioliani, Todesco, Patterson, and Turina. Richard Patterson studied in Spain with one of Europe's finest guitarists, Jose Tomas. Bettine Clemen Ware has toured extensively with both the Munich and Stuttgart Bach orchestras and has also taught and performed in Shanghai and Beijing at the request of the Chinese government. Future concerts in the series include: Daniel and Machiko Kobialka playing violin and piano on



October 20; the Aurora String Quartet on November 17; and the Pacific Arts Trio on December 8.

Tickets are \$6 for members and \$8 for non-members and can be purchased by sending a check and a self-addressed, stamped envelope to Morrison Planetarium, Academy of Sciences, Golden Gate Park, San Francisco, CA 94118. If you have any questions or are interested in the discount for series tickets call (415) 750-7127.

TRACKS in the SKY

An exhibition by Tupper Ansel Blake Opens September 26



*Alaskan Grizzly by
Tupper Ansel Blake*

Each year millions of birds follow the arduous air route between Alaska and Costa Rica called the Pacific flyway. Their migration and the chain of wetlands that sustain them on their journey are the subjects of a new major exhibit by photographer Tupper Ansel Blake. Entitled "Tracks in the Sky: Wildlife and Wetlands of the Pacific Flyway," Blake has spent the past five years gathering thousands of photos ranging from the astounding little one-ounce postage stamp bird to salmon fishing grizzlies. Blake's work is also found in the new Chronicle Book publication of the same title with text by naturalist author Peter Steinhart. Both Blake and Steinhart will be signing their new book on Saturday, September 26, from 11 a.m. to 3 p.m. at the Academy.

The exhibition, 100 photographs plus artifacts from flyway wetlands, has been made possible by grants from Chevron, the San Francisco Chronicle and the Dean Witter Foundation. It has been organized by the Academy and will be traveled by the Smithsonian Institution Traveling Exhibitions Service (SITES) in Washington D.C. Blake's

award winning photographs have appeared in books and magazines, and in exhibits at the Academy, the United Nations and Smithsonian Institution.

In addition to the opening day book signing, Blake and Steinhart will present the October 14 and 15 Members' Meetings. See your newsletter for details.

How Do Birds Migrate?

Dr. Luis Baptista, chairman of the Academy's Ornithology and Mammalogy Department, presents a slide lecture of the latest findings on bird migration on Tuesday, September 29 at 8:00 p.m. in Morrison Auditorium. In his entertaining and informative style, Baptista will discuss the hows and whys of avian migration. Do birds use stars? magnetic compasses? polarized light? to find their way to their breeding grounds and back again. How do they acquire fat reserves for the long journey and what are the cues that trigger the events preceding migration? All tickets, \$2 for members and \$3 for non-members, will go on sale at the door at 7:15, the night of the lecture. For information call the Special Programs Office at (415) 750-7222.

A Personal Look at the Pacific Flyway

Living near the Pacific flyway offers Bay Area residents a valuable opportunity to observe the annual migration. To help both novice and seasoned birdwatchers appreciate this spectacle of nature, the Academy's Adult Education Office offers a variety of trips and classes to help observe and understand this phenomenon. Basic bird identification classes with Dan Murphy on five November evenings can be combined with any number of Saturday bus trips to Bay Area birding "hotspots" including Abbott's Lagoon and Palo Alto Baylands, or walking trips through the Golden Gate National Recreation area. Dr. Luis Baptista will lead a group to the Sacramento National Wildlife Refuge on November 21 to tour one of the most important wintering areas for waterfowl in the flyway. Dr. Jack Arnold will explore the native and migratory birds of Bodega Bay on an October 24 bus trip.

For further information on these and other Adult Education activities call (415) 750-7100.

September Exhibits at the Academy

Don't put off seeing "Zoology of the Future," the fascinating look 50 million years into the future at what animals may inhabit the Earth. The desert leaper, night stalker, and gigantelope will be leaving the Academy after Labor Day, September 7, so don't delay or you will have to wait 50 million years to see them.

"Lightning!" has been extended

through October 11 and winning works from the "Fifth Annual Photography Contest for Young People" continue through January 3.

"Voyager II at the Seventh Planet," which was previewed in the summer newsletter, will not be shown at the Academy this year due to scheduling problems. We apologize for any inconvenience this may have caused our members.

New Grants to Academy Scientists

Several Academy staff members have recently received grant funds to pursue new projects. The Academy's Steinhart Aquarium received a \$19,000 conservation support grant from the Institute of Museum Studies to study penguin reproductive behavior. The grant, which will be implemented by penguin biologist Christina Slager, provides funds for the construction in the penguin environment of two special nest boxes with humidity probes and closed circuit television cameras to monitor parent chick interaction.

One television monitor will be located in the aquarium so that visitors can also watch this rarely seen behavior.

Drs. Michael Ghiselin and Terrence Gosliner have been awarded nearly \$50,000 by the National Science Foundation to work on a relatively untouched area of research, the evolution of mollusks. Their two-year project will make use of the new molecular studies laboratory recently established at the Academy for use by Dr. David Jameson, senior research fellow,

and other Academy staff.

Dr. Jacques Gauthier, assistant curator of the Herpetology Department, has received a three year National Science Foundation grant for \$80,000 to study a little understood and controversial issue — the origin of the earliest dinosaurs. Gauthier will study and compare 200 million year old specimens found in Europe, South Africa, and South America to gain a better understanding of their structures and origins.

Morrison Planetarium Revisited

The sky show "Cosmic Limits" can be seen weekdays at 2:00 p.m. and weekends hourly from 1:00 to 4:00 p.m. through Sunday, September 13. Through September 7 there will be an additional weekday show at 3:30 p.m.

The Planetarium will be closed from September 14 through 17 while the star projector is prepared for a new sky show.

In a special sky show celebrating the 35th anniversary of the Academy's Morrison Planetarium, the staff will share the secrets of how they bring the wonders of the universe down to Earth in an updated version of the first sky show ever produced. "Stars Over San Francisco," opening September 18, will focus on the changes that advanced technology has brought to both the field of astronomy and to planetarium programs. The show will answer the most frequently asked questions about the planetarium on weekdays at 2:00 p.m. and weekends and holidays at 1:00, 2:00, 3:00 and 4:00 p.m. from September 18 through November 29.

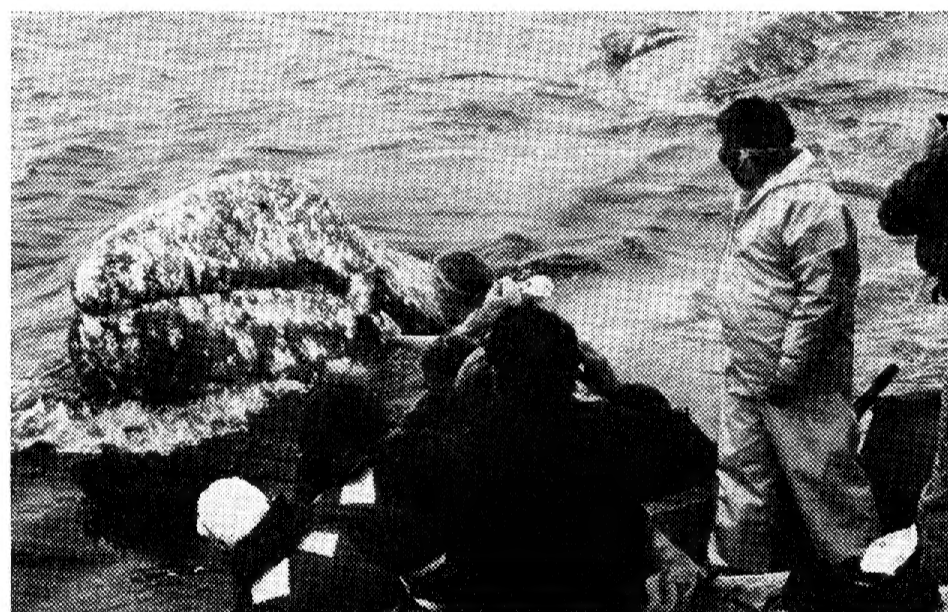
"Exploring the Skies of the Season" displays the night skies over San Francisco on weekends at 12:00 noon.

Members should check in at the Planetarium Box Office at least ten minutes before show time to be assured of getting a seat.

The World Awaits

The Academy's travel program offers a chance to visit fascinating destinations around the world accompanied by an expert whose knowledge will add immensely to the enjoyment and memories of the trip.

Baja California and the Sea of Cortez March 24 — April 4



Pieter Folkens

Baja waters are a refuge for the endangered blue and humpback whales as well as gray whales and several species of dolphins.

In the company of our naturalists, Academy members will cruise south from San Diego aboard the 86-foot Spirit of Adven-

ture, to the gray whale calving lagoon of San Ignacio. The ship will make a number of stops at off-shore islands for day excursions. Arm's length encounters with gray whales as they drift near small skiffs will provide memories for a lifetime. In the Sea of Cortez we'll look for feeding blue whales, explore the uninhabited islands renowned for their immense and diverse bird populations, and snorkel and swim among friendly sea lions. When the ship docks in La Paz, travelers will have experienced the dramatic variety of life from temperate to tropical waters making this one of the richest, most varied expeditions possible. Cost is \$2050 including roundtrip air fare from San Francisco.

Other Expeditions:

Canyons of Time: A Tour to America's Southwest
September 20-October 3
Leader: Dr. Linda Cordell

Archaeological Tour of Peru
October 6-20
Leader: Dr. John Carlson

India and Nepal
October 28-November 20
Leader: Beth Dunbar

Antarctica Expedition
January 7-20
Leader: Dr. Kathy Ann Miller

Tanzania Tenting Safari — wait list only

January 14-30 or March 3-19
Leader: Beth Dunbar

The Natural History of Costa Rica
February 1-18
Dr. Frank Almeda

The Fringe of Ancient Polynesia
March 7-24
Leader: Dr. John McCosker

The Academy Travel Office would be happy to answer questions about these expeditions; call (415) 750-7222.

Tales from Many Lands Told at Academy's Traditional Arts Programs



Diane Ferlatte

The Traditional Arts programs offer insights into the colorful cultural traditions of the world through presentations every Saturday at 1:00 p.m. in Wattis Hall. Bay Area residents who are keeping their native heritage alive demonstrate music, dance, handcrafts, or culinary skills to museum visitors. The Traditional Arts programs are funded by a grant from the Paul L. and Phyllis

Wattis Foundation and are offered free to museum visitors.

September 5 — No program

September 12 — Jewish folktales can be found in villages all over the world, reflecting the experiences of Jewish people in particular regions. Drawing on her Russian-Polish heritage, Rachel Mandel tells stories from the rural Jewish communities where her grandparents lived and from her own childhood in Los Angeles.

September 19 — Diane Ferlatte presents a special storytelling session for the hearing impaired incorporating American sign language. Diane emphasizes visual as well as oral communication in her energetic performance of African, Caribbean, and Afro-American tales, highlighting the diversity of Black storytelling styles and techniques.

September 26 — Members of the Bay Area Hawaiian community, Ehulani Lum and her dance ensemble Kaulana Na Pua o Hawaii perform traditional chants, hulas, and other Polynesian dances.

Laserium Enters a New Dimension

Laserium, the original laser show, takes a giant leap forward, generating new excitement with its latest rock music presentation. "Moon-rock" features never-before-seen laser graphics, three-dimensional animation, multi-laser images that surround the viewer, and a flight-through-space finale that must be seen to be believed — even veteran Laserium audiences will be amazed.

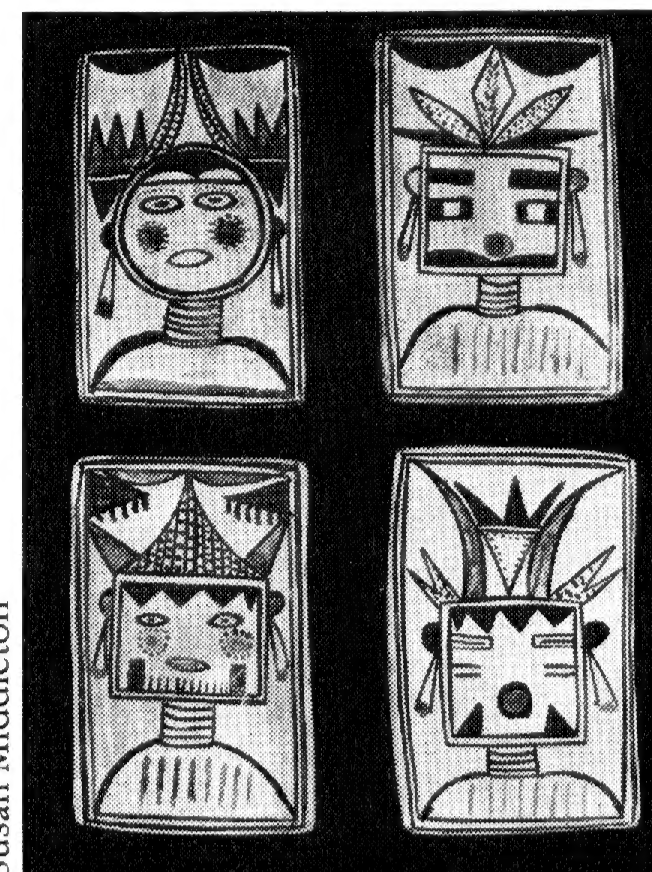
For other musical tastes, "Rainbow Cadenza," featuring classical music and "Laserspace" with New Age Music can still be enjoyed.

Laserium is offered on Thursday through Sunday evenings in the Planetarium. Call (415) 750-7138 for schedules and prices. Members are reminded that Laserium is not an Academy production, and that membership discounts are not available.

A Starry Night to Benefit the Academy

A glittering "Starry Night" of dining and dancing at the Academy will be held on Wednesday, October 21. This third annual black tie event offers a fun-filled evening of strolling through halls festooned with heavenly decorations, enjoying cocktails at the Stardust Bar and along the Milky Way, and dancing under the starry skies to orchestras for every musical mood. Proceeds from "Starry Night" will be used toward the purchase of a computer automated console for Morrison Planetarium, which celebrates its 35th birthday this fall. Tickets for the evening begin at \$125 per person. For details call the Special Events Office at (415) 750-7219.

Special Gifts



Rare Hopi painted tiles

The Academy has recently acquired several rare and very important pieces of American Indian art from Mrs. Elizabeth McFarland, an Academy member. A very rare seed jar by Nampeyo, the most famous Hopi potter; a pristine Navajo rug; and a collection of 70 Hopi painted tiles that may be the world's largest collection, were donated by Mrs. McFarland to the Academy's Anthropology Department. The artifacts were collected by her parents, Dr. Jacob Breid and his wife Marie, during the early 20th century while he was a physician in the Southwest for the Indian Health Service. A large collection of historic photographs taken by Dr. Breid as he worked at eight different reservations was also included in the gift.

This collection and a previous gift of American Indian artifacts by Mrs. McFarland in 1985 represent a resource of enormous importance for anthropological researchers and art historians. If you have an artifact or collection that you may be interested in donating to the Anthropology Department call (415) 750-7163.

HELP! The Academy Exhibits Department is looking for a hat with egret feathers that could be borrowed for several years to tour with the exhibition "Tracks in the Sky." It was the hunting to near extinction of Snowy Egrets and other birds for the millinery trade that resulted in the formation of the National Audubon Society in 1886. If you have an egret feather hat and would be interested in loaning it to the Academy please contact the Exhibits Department at (415) 750-7005.

Golden Gate Park
San Francisco, California 94118-9961
(415) 221-5100

Open every day of the year
from 10 until 5



Non-Profit Organization
U.S. Postage Paid
Permit No. 7544
San Francisco

A Busy September at the Academy

- 7 Last day of "Zoology of the Future"
- 9 Members' Meetings: "Rewriting the History of the Gold Rush Through Underwater Archaeology: 2:00 and 8:00 p.m.
- 10 Members' Meeting—8:00 p.m.
- 12 Traditional Arts—Jewish Folktales 1:00 p.m.
- 13 Last day of "Cosmic Limits" in Planetarium
- 18 "Stars Over San Francisco" opens in Planetarium
- 19 Traditional Arts—Afro-American Folktales 1:00 p.m.
- 22 Patterson-Ware Duo in Planetarium 8:00 p.m.
- 23 Cameos of Cantonese Opera 7:30 p.m.
- 26 "Tracks in the Sky" exhibition opens
Book signing by Blake and Steinhart
11:00 a.m. – 3:00 p.m.
- 26 Traditional Arts—Polynesian dances 1:00 p.m.
- 29 "How Do Birds Migrate?" lecture 8:00 p.m.



Susan Middleton

The Academy in brilliant color! The new large format guide book on sale at the Academy Store shows the highlights of our museum for only \$4.95.

Looking Ahead to October

- 14 Members' Meetings: "Tracks in the Sky" 2:00 and 8:00 p.m.
- 15 Members' Meeting—8:00 p.m.
- 21 Starry Night Dinner Dance
- 29 "Descent of the Omo River" lecture 8:00 p.m.